

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF APS AND LED COUNTDOWN PEDESTRIAN SIGNAL ACROSS THE EAST LEG AT THE INTERSECTION OF MD 175 (PATUXENT PARKWAY) AND THUNDER HILL ROAD IN HOWARD COUNTY, DUE TO THE RESURFACING AND SAFETY IMPROVEMENTS TO MD 175. THE MEDIAN NOSE ON THE EAST LEG WILL BE PULLED BACK AND A PORTION OF THE TRAFFIC SIGNAL RE-WIRED DUE TO THE REMOVAL OF AN EXISTING HANDHOLE. ALL EXISTING TRAFFIC SIGNAL HEADS WILL REMAIN. MD 175 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EMERGENCY VEHICLE PRE-EMPTION FOR THE WESTBOUND DIRECTION, MAINLINE EXCLUSIVE LEFT TURN PHASING AND SIDE-STREET SPLIT PHASING. THE ALTERNATIVE SIDE STREET PEDESTRIAN PHASE WILL REMAIN.

APS WILL FUNCTION AS FOLLOWS:

FOR PATUXENT PARKWAY

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON WILL BE "WAIT TO CROSS PATUXENT PARKWAY."
- B. WHEN "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CONTROLLER SHALL REMAIN.

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

Mr. John Concannon
Assistant District Engineer - Traffic
Phone: 301-624-8140

Ms. Andrea Abend
Assistant District Engineer - Utility
Phone: 301-624-8115

Mr. Ray Johnson
Assistant District Engineer - Maintenance
Phone: 301-624-8105

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Edward Rodenhizer
Chief, SHA Signal Shop
Phone: 410-787-7650

The Power Company Inc.
Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
Phone: 410-859-9062

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

CATEGORY CODE	QUANTITY	DESCRIPTION
973023	103 SF	SHEET ALUMINUM SIGNS:
		2 EA - R10-30) MOD, (9 IN. X 15 IN.) POLE MOUNT, "PUSH BUTTON TO CROSS PATUXENT PARKWAY"
		1 EA - ASSOCIATED SHIELD ASSEMBLY "EAST, MD 175, LEFT ARROW" (48 IN. X 75 IN.)
		1 EA - ASSOCIATED SHIELD ASSEMBLY "WEST, MD 175, LEFT ARROW" (48 IN. X 75 IN.)
		1 EA - ASSOCIATED SHIELD ASSEMBLY "EAST, MD 175, RIGHT ARROW" (30 IN. X 51 IN.)
		1 EA - ASSOCIATED SHIELD ASSEMBLY "WEST, MD 175, RIGHT ARROW" (30 IN. X 51 IN.)
		1 EA - R4-7, KEEP RIGHT (24 IN. X 30 IN.)
		2 EA - W11-2, FY (36 IN. X 36 IN.) "ADVANCED PEDESTRIAN SYMBOL"
		2 EA - M6-2 (MOD), FY (15 IN. X 21 IN.) "DIRECTIONAL ARROW - DIAGONAL"

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

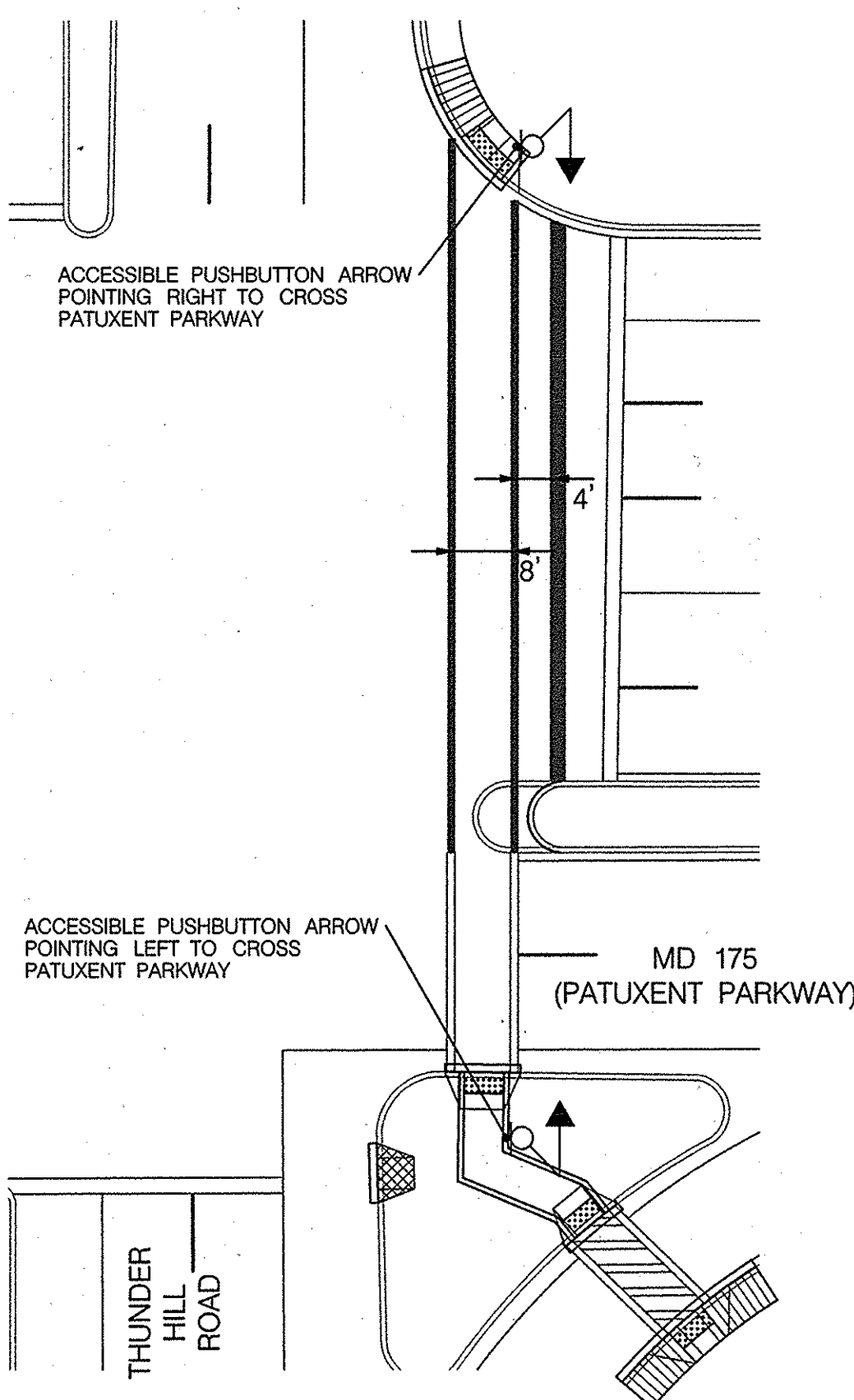
CATEGORY CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
120662	80 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
585621	200 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	80 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
800000	1 EA	2-WIRE CENTRAL CONTROL UNIT
800000	2 EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	2 EA	ACCESSIBLE PEDESTRIAN PUSHBUTTON
800000	1 LS	REMOVE AND DISPOSE OF TRAFFIC SIGNAL EQUIPMENT
801104	20 LF	WOOD SIGN SUPPORTS 4 INCH X 4 INCH
801106	35 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
802501	150 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	150 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805118	75 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
805135	25 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805155	100 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
810605	6 EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD-IN CABLE
811001	5 EA	ELECTRICAL HANDHOLE
813014	28 SF	INSTALL GROUND MOUNTED SIGN
813015	75 SF	INSTALL OVERHEAD SIGN
816005	1 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816010	1 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
861105	210 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
861107	290 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
861108	1180 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
861116	230 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG), TC

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO	QUANTITY	DESCRIPTION
NONE	-	ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR

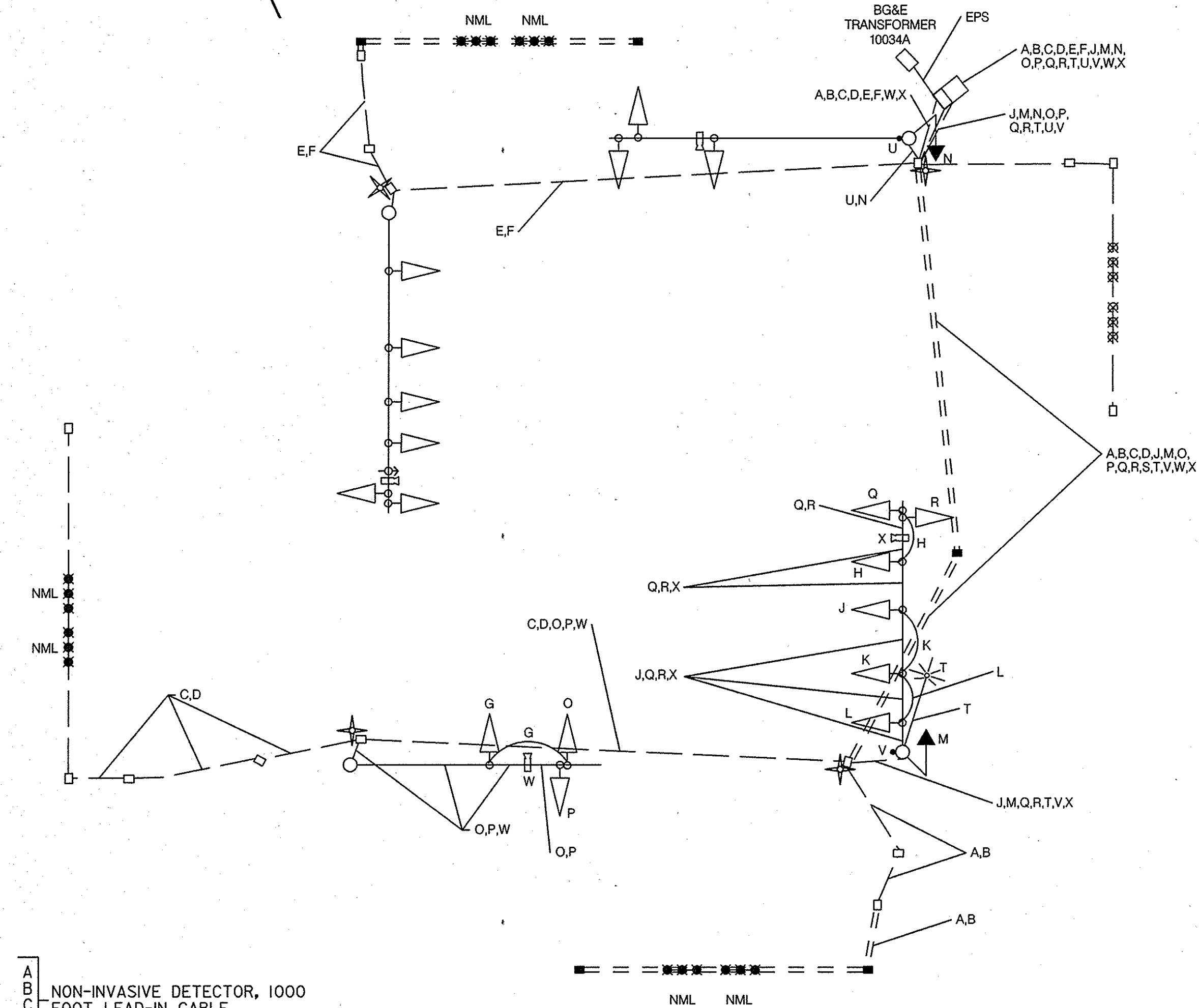
PROPOSED APS AND PAVEMENT MARKING DETAIL LAYOUT



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
PHASE 1 & 5	←	←	←	R	R	←	←	←	←	R	R	R	R	R	R	R	R	R	DW	DW	
PHASE 1 & 5 CHANGE																			DW	DW	
PHASE 1 & 6	←	←	←	G	G	G	←	←	←	R	R	R	R	R	R	R	R	R	DW	DW	
PHASE 1 CHANGE	←	←	←	G	G	G	←	←	←	R	R	R	R	R	R	R	R	R	DW	DW	
PHASE 2 & 5	←	←	←	R	R	R	←	←	←	G	G	G	R	R	R	R	R	R	DW	DW	
PHASE 5 CHANGE	←	←	←	R	R	R	←	←	←	G	G	G	R	R	R	R	R	R	DW	DW	
PHASE 2 & 6	←	←	←	G	G	G	←	←	←	G	G	G	R	R	R	R	R	R	DW	DW	
PHASE 2 & 6 CHANGE	←	←	←	Y	Y	Y	←	←	←	Y	Y	Y	R	R	R	R	R	R	DW	DW	
PHASE 3	←	←	←	R	R	R	←	←	←	R	R	R	←	←	←	←	←	←	DW	DW	
PHASE 3 CHANGE	←	←	←	R	R	R	←	←	←	R	R	R	Y	Y	Y	Y	R	R	DW	DW	
PHASE 3 ALT.	←	←	←	R	R	R	←	←	←	R	R	R	←	←	←	←	←	←	W	W	
PHASE 3 PED CLEARANCE	←	←	←	R	R	R	←	←	←	R	R	R	←	←	←	←	←	←	FL/DW	FL/DW	
PHASE 3 ALT. CHANGE	←	←	←	R	R	R	←	←	←	R	R	R	Y	Y	Y	Y	R	R	DW	DW	
PHASE 4	←	←	←	R	R	R	←	←	←	R	R	R	R	R	R	←	←	←	G	DW	DW
PHASE 4 CHANGE	←	←	←	R	R	R	←	←	←	R	R	R	R	R	R	Y	Y	Y	DW	DW	
PHASE 2 & 5 PRE-EMPTION	←	←	←	R	R	R	←	←	←	G	G	G	R	R	R	R	R	R	DW	DW	
PHASE 2 & 5 PRE-EMPTION CHANGE	←	←	←	R	R	R	←	←	←	Y	Y	Y	R	R	R	R	R	R	DW	DW	
FLASHING OPERATION	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/Y	FL/RA	FL/RA	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	

WIRING DIAGRAM



NON-INVASIVE DETECTOR, 1000 FOOT LEAD-IN CABLE

- S NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- T ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG), TC
- U ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
- W CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
- X

NML NON-INVASIVE MICROLOOP PROBE SET

EPS EXISTING POWER SOURCE

EXISTING GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH

STV Incorporated

engineers/architects/planners/construction managers
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 175 (PATUXENT PARKWAY) AT THUNDER HILL ROAD

GENERAL INFORMATION

SCALE NONE DATE 10/2007 CONTRACT NO. H03715177

DESIGNED BY MCG COUNTY HOWARD
DRAWN BY MCG LOGMILE 13017506.13
CHECKED BY BAB CSW T.I.M.S. NO. H951
F.A.P. NO. TOD NO.

TS NO. 467 C-GI DRAWING SG - 2 OF 6 SHEET NO. OF

PLOTTED: FRIDAY, OCTOBER 12, 2007 AT 09:55 AM
FILE: I:\PROJECTS\0312513\0312513.002\DRAWINGS\TRA\THUNDER HILL ROAD\PS&E 10-07\PSG-P002.THUNDER.DGN